IN THE CLAIMS:

Amend the following claims:

1. (cancelled)

2. (currently amended) An objective lens ~~according to claim 1, further~~ including:

an optical element made of a medium that shows an internal transmittance of at least 50% through a thickness of 10mm for a wavelength of 300nm; and

at least one diffractive optical element ~~constructed of a medium used as~~ having a substrate~~, having~~ made of a medium that shows an internal transmittance of at least 50% [[at]] through a thickness of 10mm for a wavelength of 300 nm ~~when a thickness is 10 mm~~.

3. (currently amended) An objective lens according to claim [[1]] 2, wherein the diffractive optical element is optimized to take advantage of a fluorescent wavelength.

4. (currently amended) An objective lens according to claim [[1]] 2, ~~further~~ including at least one cemented lens component ~~made up of~~ having lens elements ~~having~~ made of media of different refractive indices and Abbe's numbers.

5. (currently amended) An objective lens according to claim [[1]] 2, wherein an NA of the objective lens where correction for aberration is made and an NA of the objective lens where [[the]] an effective diameter is determined are different from each other to satisfy the following condition:

$$NAe > 1.5 \times NAc$$

where NAe is the NA of the objective lens where the effective diameter is deter-mined and NAc is the NA of the objective lens where correction for aberration is made.

6. (currently amended) An objective lens according to claim [[1]] 2, constructed as a water-immersion objective lens in which ~~the~~ an NA of the objective lens where [[the]] an effective diameter is determined is at least 0.6.

7. (currently amended) An objective lens according to claim [[1]] 2, wherein an optical path length extending along an optical axis is 20 mm or less.

8. (currently amended) An objective lens according to claim [[1]] 2, wherein group delay dispersion relating to an axial ray of light is 1000 f sec^2 or less.

9. (currently amended) An objective lens according to claim [[1]] 2, wherein at least one of the ~~medium~~ media that show an internal transmittance of at least 50% through a thickness of 10mm for a wavelength of 300nm is quartz or fluorite.

10. (currently amended) An objective lens according to claim [[1]] 2, comprising, in order from an object side[[,]]:

a plano-convex lens made of quartz, with a convex surface facing an image side; a positive meniscus lens made of quartz, with a convex surface facing the image side; a cemented doublet of a negative meniscus lens made of quartz and a biconvex

lens made of fluorite; and a diffractive optical element.

11. (currently amended) An objective lens according to claim [[1]] 2, wherein a wavelength region ~~of the objective lens where~~ for which correction for ~~aberration~~ aberrations is made is a near-infrared region.

12. (currently amended) An objective lens according to claim [[1]] 2, wherein correction for ~~aberration~~ aberrations is made ~~in accordance with~~ for each wavelength ~~region which is a near infrared region and has~~ band having a bandwidth of at least 30 nm in a near infrared region, and a best position in each wavelength ~~region~~ band varies.

13. (currently amended) An objective lens according to claim [[1]] 2, exclusively used in a multiphoton microscope.

14. (currently amended) An objective lens according to claim 5, wherein a region from a center of [[a]] the diffractive optical element to the numerical aperture NAc is different from a region

from the numerical aperture NAc to the numerical aperture NAe in diffraction efficiency or focal length of the diffractive optical element.